IN THE CLAIMS

1. (currently amended) ~~Method~~ A method for sending a signal formed by successive vectors each comprising N symbols to be sent, and implementing at least two transmitter antennas, ~~characterized in that~~ wherein a distinct sub-matrix is associated with each of said antennas, said sub-matrices being obtained by subdivision of a unitary square matrix, and ~~in that~~ each of said antennas sends sub-vectors, obtained by subdivision of said vectors, respectively multiplied by said sub-matrices, so as to form, as seen from a receiver, a single combined signal representing the multiplication of said vectors by said unitary matrix.

2. (currently amended) ~~Transmission~~ The method according to claim 1, implementing Nt antennas, ~~characterized in that~~ wherein each of said sub-matrices has a size of (N/Nt) x N.

3. (currently amended) ~~Transmission~~ The method according to claim 2, ~~characterized in that~~ wherein N/Nt is greater than or equal to 2.

4. (currently amended) ~~Transmission~~ The method according to ~~any of the claims 1 to 3, characterized in that~~ claim 1, wherein said unitary matrix is full.

5. (currently amended) ~~Transmission~~ The method according to ~~any of the claims 1 to 4, characterized in that~~ claim 1, wherein said unitary matrix belongs to the group comprising:

- the real Hadamard matrices;
- the complex Hadamard matrices;
- the Fourier matrices;
- the real rotation matrices;
- the complex rotation matrices.

6. (currently amended) ~~Transmission~~ The method according to

~~any of the claims 1 to 5, characterized in that it~~ claim 1, wherein implements two transmitter antennas and ~~in that~~ said sub-matrices have a value of [1 1] and [1 -1].

7. (currently amended) ~~Transmission~~ The method according to ~~any of the claims 1 to 5, characterized in that it~~ claim 1, wherein the method implements two transmitter antennas and ~~in that~~ said sub-matrices have a value of $\frac{1}{\sqrt{2}}\begin{bmatrix}1 & 1 & 1 & 1\\ 1 & -1 & 1 & -1\end{bmatrix}$ and $\frac{1}{\sqrt{2}}\begin{bmatrix}1 & 1 & -1 & -1\\ 1 & -1 & -1 & 1\end{bmatrix}$.

8. (currently amended) ~~Transmission~~ The method according to ~~any of the claims 1 to 5, characterized in that it~~ claim 1, wherein the method implements four transmitter antennas and ~~in that~~ said sub-matrices have a value of [1 1 1 1], [1 -1 1 -1], [1 1 -1 -1] and [1 -1 -1 1].

9. (currently amended) ~~Method~~ A method for the reception of a signal ~~sent according to the transmission method of any of the claims 1 to 8, characterized in that it~~ corresponding to the combination of contributions of each of at least two transmitter antennas, a distinct sub-matrix being associated with each of said antennas, said sub-matrices being obtained by subdivision of a unitary square matrix, wherein each of said antennas sends sub-vectors, obtained by subdivision of said vectors, respectively multiplied by said sub-matrices, and wherein the signal forms, seen from a receiver, a single combined signal representing the multiplication of said vectors by said unitary matrix, wherein the method implements at least one receiver antenna, ~~and in that it~~ receives said single combined signal on each of said receiver antennas, and ~~in that it~~ decodes said single combined signal by means of the decoding matrix corresponding to a matrix that is the conjugate transpose of said unitary matrix.

10. (currently amended) ~~Reception~~ The method according to claim 9, ~~characterized in that~~ wherein a maximum likelihood decoding is applied to the data coming from the multiplication by said conjugate transpose matrix.

11. (currently amended) ~~Signal sent according to the transmission method of any of the claims 1 to 8, characterized in that it corresponds~~ A signal corresponding to the combination of ~~the~~ contributions of each of ~~said~~ at least two transmitter antennas, a distinct sub-matrix being associated with each of said antennas, said sub-matrices being obtained by subdivision of a unitary square matrix, ~~and in that~~ wherein each of said antennas sends sub-vectors, obtained by subdivision of said vectors, respectively multiplied by said sub-matrices, and wherein the signal ~~and in that it~~ forms, seen from a receiver, a single combined signal representing the multiplication of said vectors by said unitary matrix.